

Claims:

1. A transimpedance amplifier comprising:
 - a first amplifier having an inverting input, a non-inverting input and an output;
 - a first MOS resistor device having a drain terminal, a source terminal and a gate terminal, said source terminal begin coupled to said first amplifier inverting input;
 - a first voltage divider circuit coupled between said first amplifier output and said first amplifier non-inverting input and having an output coupled to said first MOS resistor device drain terminal;
 - a second amplifier having an inverting input, a non-inverting input and an output, said output being coupled to said gate terminal of said first MOS resistor device;
 - a second MOS resistor device having a drain terminal, a source terminal and a gate terminal, said gate terminal coupled to said second amplified output, and said drain terminal coupled to said second amplifier non-inverting input;
 - a second voltage divider circuit coupled between said first amplifier output and said second MOS resistor device source terminal, and having an output coupled to said second amplifier inverting input; and
 - a resistor coupled between said first amplifier output and said second MOS resistor device drain terminal.
2. The transimpedance amplifier of claim 1 and further including a photodiode coupled between said first amplifier non-inverting input and said inverting input.
3. The transimpedance amplifier of claim 1 and further including a current source coupled to said second amplifier non-inverting input.
4. The transimpedance amplifier of claim 1 and further including a third MOS resistor device coupled in parallel with said second MOS resistor device.